

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 1 of 1

PATENT NO. : 7,365,534

APPLICATION NO.: 10/500,950

ISSUE DATE : April 29, 2008

INVENTOR(S) : Niles TRALSHAWALA et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(75) Inventors: "...Yuri Polyako, East Setauket, NY (US) ..." should be changed to ...Yuri Polyakov, East Setauket, NY (US)...

MAILING ADDRESS OF SENDER (Please do not use customer number below):

Katten Muchin Rosenman, LLP.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor : Niles TRALSHAWALA et al.
U. S. Patent No. : 7,365,534
Serial No. : 10/500,950
Issued : April 29, 2008
For : APPARATUS FOR MEASURING...

July 11, 2008

Certificate of Corrections Branch
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REQUEST FOR A CERTIFICATE OF CORRECTION

SIR:

We request a Certificate of Correction under 35 U.S.C. §254, to correct on the front page of the Patent the third inventor, which was incorrectly listed as “...Yuri Polyako, East Setauket, NY (US)...” Please change the same to read: “... Yuri Polyakov, East Setauket, NY (US)...”

Attached, please find a copy of Page 1 of the Patent, Filing Receipt and Declaration.

This was due to an error made by the USPTO.

Any fee due as a result of this paper, may be charged to Deposit account No. 50-1290.

Respectfully submitted,

/Dexter T. Chang/

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Docket No.: CARDM 19.258(100554-00068)



US007365534B2

(12) **United States Patent**
Tralshawala et al.

(10) **Patent No.:** US 7,365,534 B2
(45) **Date of Patent:** Apr. 29, 2008

(54) **APPARATUS FOR MEASURING MAGNETIC FIELDS USING A SUPERCONDUCTING QUANTUM INTERFERENCE DEVICE**

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,324,255 A 4/1982 Barach et al.

(Continued)

FOREIGN PATENT DOCUMENTS

JP 4-160380 6/1992

(Continued)

OTHER PUBLICATIONS

N. Ishikawa et al. "Effect of RF Interference on Characteristics of DC SQUID System" IEEE Transactions on Applied Superconductivity, vol. 3 No. 1, Mar. 1993, pp. 1910-1913.

(Continued)

Primary Examiner—Jay M Patidar

(74) Attorney, Agent, or Firm—Katten Muchin Rosenman LLP

(57) **ABSTRACT**

An instrument for measuring sub-pico Tesla magnetic fields using a superconducting quantum interference device (SQUID) inductively coupled to an unshielded gradiometer includes a filter for filtering magnetically-and electrically coupled radio frequency interference (RFI) away from the SQUID. This RFI is principally coupled to the SQUID via the unshielded gradiometer. The filter circuit includes a resistor-capacitor (RC) combination interconnected to first and second terminals so that it is parallel to both an input coil of the SQUID and the gradiometer. In addition, a shielding enclosure is used to electromagnetically shield the filter circuit from the SQUID, and a method is employed to increase the impedance between the input coil and the SQUID without diminishing the overall sensitivity of the instrument.

9 Claims, 12 Drawing Sheets

(75) Inventors: Nilesch Tralshawala, Clifton Park, NY (US); Alexander Bakharev, Niskayuna, NY (US); ~~Yuri Polyakov~~, East Setauket, NY (US) **Yuri Polyakov**

(73) Assignee: CardioMag Imaging, Inc., Schenectady, NY (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 23 days.

(21) Appl. No.: 10/500,950

(22) PCT Filed: Feb. 26, 2003

(86) PCT No.: PCT/US03/05752

§ 371 (c)(1),

(2), (4) Date: Jul. 7, 2004

(87) PCT Pub. No.: WO03/073117

PCT Pub. Date: Sep. 4, 2003

(65) **Prior Publication Data**

US 2004/0239319 A1 Dec. 2, 2004

Related U.S. Application Data

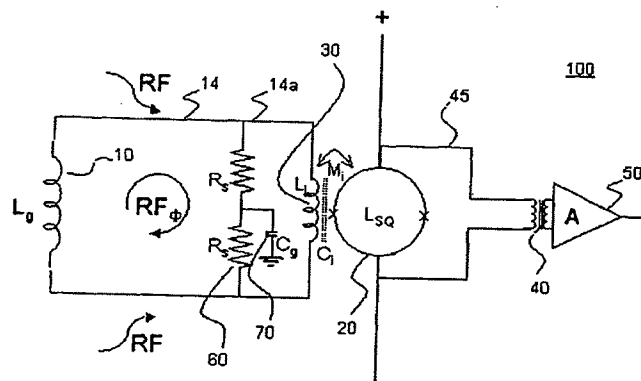
(60) Provisional application No. 60/360,090, filed on Feb. 26, 2002.

(51) Int. Cl. G01R 33/035 (2006.01)

(52) U.S. Cl. 324/248; 505/846

(58) Field of Classification Search 324/248, 324/244, 260, 262; 505/842-846; 327/527

See application file for complete search history.





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|------------|---------------------------|----------|---------------|---------------------------|----------|----------|----------|
| 10/500,950 | 07/07/2004 | 1652 | 385 | CARD 19.258 (100554-00068 | 12 | 13 | 2 |

CONFIRMATION NO. 1493

026304
 KATTEN MUCHIN ZAVIS ROSENMAN
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 NEW YORK, NY 10022-2585

FILING RECEIPT



OC000000013511942

Date Mailed: 08/12/2004

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Applicant(s)

Nilesh Traishawala, Clifton Park, NY;
 Alexander Bakharev, Niskayuna, NY;
 Yuri Polyakov, East Setauket, NY;

Domestic Priority data as claimed by applicant

This application is a 371 of PCT/US03/05752 02/26/2003
 which claims benefit of 60/360,090 02/26/2002

Foreign Applications

Projected Publication Date: To Be Determined - pending completion of Security Review

Non-Publication Request: No

Early Publication Request: No

**** SMALL ENTITY ****

Title

Sub-picotesla magnetic field detector

Preliminary Class

435

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10/500950

PTO/SB/01-08-03)

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**DECLARATION FOR UTILITY OR
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PATENT APPLICATION
(37 CFR 1.63)**



Declaration
Submitted
With Initial
Filing

OR



Declaration
Submitted after Initial
Filing (surcharge
(37 CFR 1.16 (e))
required)

Attorney Docket Number

CARD19.258(100554-00068)

First Named Inventor

TRALSHAWALA, Nilesh

COMPLETE IF KNOWN

Application Number

concurrently herewith

Filing Date

concurrently herewith

Art Unit

Examiner Name

I hereby declare that:

Each inventor's residence, mailing address, and citizenship are as stated below next to their name.

I believe the inventor(s) named below to be the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

SUB-PICOTESLA MAGNETIC FIELD DETECTOR

(Title of the Invention)

the specification of which



is attached hereto

OR



was filed on (MM/DD/YYYY)

as United States Application Number or PCT International

Application Number

and was amended on (MM/DD/YYYY)

(if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

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| Prior Foreign Application Number(s) | Country | Foreign Filing Date (MM/DD/YYYY) | Priority Not Claimed | Certified Copy Attached? | |
|--|---------|-------------------------------------|--------------------------|--------------------------|--------------------------|
| | | | | Yes | No |
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☐ Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

[Page 1 of 2]

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| NAME OF SOLE OR FIRST INVENTOR: | | <input type="checkbox"/> A petition has been filed for this unsigned inventor | |
| Given Name (first and middle [if any]) Nilesh | | Family Name or Surname TRALSHAWALA | |
| Inventor's Signature <i>Nilesh Tralshawala</i> | | Date 6/4/04 | |
| Residence: City Clifton Park <i>NY</i> | State New York | Country U.S.A. | Citizenship India |
| Mailing Address 28 C Hollandale Lane | | | |
| City Clifton Park | State New York | ZIP 12065 | Country U.S.A. |
| NAME OF SECOND INVENTOR: | | <input type="checkbox"/> A petition has been filed for this unsigned inventor | |
| Given Name (first and middle [if any]) Alexander | | Family Name or Surname BAKHAREV | |
| Inventor's Signature <i>Alexander Bakharev</i> | | Date 06-04-2004 | |
| Residence: City Niskayuna <i>NY</i> | State New York | Country U.S.A. | Citizenship Russia |
| Mailing Address 65 Victoria Court | | | |
| City Niskayuna | State New York | ZIP 12309 | Country U.S.A. |
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DECLARATION

ADDITIONAL INVENTOR(S) Supplemental Sheet

Page 3 of 3

Name of Additional Joint Inventor, if any:

☐ A petition has been filed for this unsigned inventor

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Name of Additional Joint Inventor, if any:

☐ A petition has been filed for this unsigned inventor

Given Name (first and middle (if any))

Family Name or Surname

Inventor's
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Residence: City

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